

CLAIMS

1. A method for surveying fishery resources, which is characterized by comprising: a first step of obtaining an operating position data by means of GPS in conjunction with a time data corresponding to a point of time when said operating position data is obtained; a second step of obtaining an identification data given in an identification means which is provided to each of a plurality of fishing gears, in conjunction with a time data corresponding to a point of time when said identification data is obtained; a third step of executing processing for said operating position data and said time data corresponding to said point of time when the operating position data is obtained, and also executing processing for said identification data and said time data corresponding to said point of time when said identification data is obtained, so as to find a match between said time data associated with said operating position data and said time data associated with said identification data, thereby determining a particular operating position data and a particular identification data, both of which correspond to each other in terms of said time data; a fourth step of counting number of fishes and marine lives caught in or by said each of said plurality of fishing gears which are withdrawn from sea so as to obtain a fish-catch-number data with respect to said each of said plurality of fishing gears, and thereafter, associating said fish-catch-number data with said identification data given in said identification means of said each of said plurality of fishing gears for which said fish-catch-number data has been obtained, so as to obtain a particular fish-catch-number data; and a fifth step of executing processing for said particular operating position data and said particular identification data as well as for said particular fish-catch-number data and said identification data given in said identification means of said each of said plurality of fishing gears for which said fish-catch-number data has been obtained, so as to find a match between said particular identification data and said identification data, and determining a definite operating position data and a definite fish-catch-number data, both of which correspond to each other in terms of said identification data.

2. The method for surveying fishery resources as claimed in claim 1, characterized in that,

at said fourth step, said plurality of fishing gears, which have been cast into and disposed under the sea, are withdrawn in sequence from the sea and loaded onto a ship, and then, said identification data is obtained from said identification means of said each of said plurality of fishing gears thus withdrawn from the sea, thereby providing a withdrawn fishing gear identification data.

3. The method for surveying fishery resources as claimed in claim 1, characterized in that,

prior to said plurality of fishing gears being cast into the sea, said identification data is obtained from said identification means of said each of said plurality of fishing gears, thereby providing a non-cast fishing gear identification data.

4. The method for surveying fishery resources as claimed in claim 2 or claim 3,

characterized in that a time when said each of said plurality of fishing gears is located under the sea is obtained from: said non-cast fishing gear identification data in said identification means of said each of said plurality of fishing gears as well as a time data corresponding to a point of time when said non-cast fishing gear identification data is obtained; and said withdrawn fishing gear identification data in said identification means of said each of said plurality of fishing gears as well as a time data corresponding to a point of time when said withdrawn fishing gear identification data is obtained.

5. Device for surveying fishery resources, which is characterized by comprising; a GPS device for obtaining an operating position data; a clock device for outputting time data; a plurality of fishing gears; a plurality of identification means which are respectively provided to said plurality of fishing gears; a reading device for reading an identification data in each of said plurality of identification means; a fish catch counter for counting number of fish catches associated with fishes and marine lives caught in or by each of said plurality of fishing gears so as to provide a fish-catch-number data for said each of said plurality fishing gears; a computer for executing processing for data and information which are obtained from said GPS device, said clock device, said reading device and said fish catch counter; and an output device for outputting a data which is created by said processing of said computer,

wherein said computer comprises: a fishing gear data storage portion for storing said identification data obtained by said reading device in conjunction with said time data outputted from said clock device; a first fish catch data storage portion for storing said fish-catch-number data obtained by said fish catch counter, in conjunction with said time data outputted from said clock device; an operating position data storage portion for storing an operating position data obtained from said GPS device, in conjunction with said time data outputted from said clock device; a fish catch data arithmetical operation part for determining a definite identification data and a definite fish-catch-number data with respect to said each of said plurality of fishing gears, on basis of said identification data and said time data which are both stored in said fishing gear data storage area, and also on basis of said fish-catch-number data and said time data which are both stored in said first fish catch data storage portion; a second fish catch data storage portion for storing the thus-obtained definite identification data and definite fish-catch-number data which are both associated with said each of said plurality of fishing gears; a fishing gear position data arithmetical operation part for determining a definite identification data and a definite fishing gear position data with respect to said each of said plurality of fishing gears, on basis of said operating position data and said time data which are both stored in said operating position data storage portion, and also on basis of said identification data and said time data which are both stored in said fishing gear data storage portion; a fishing gear position data storage portion for storing said define identification data and said definite fishing gear position data which are both obtained by said fishing gear position arithmetical operation part; a fishery resources distribution data arithmetical operation part for determining and obtaining a data on relation between said number of fish catches and a position of fishing ground, on basis of said definite identification data and said definite fish-catch-number data which are both stored in said second fish catch data storage portion, and also on basis of said definite

identification data and said definite fish-catch-number data which are both stored in said fishing gear position data storage portion; and a fishery resources distribution data storage portion for storing said data on relation between said number of fish catches and said position of fishing ground, which has been obtained by said fishery resources distribution data arithmetical operation part.

6. The device for surveying fishery resources as claimed in claim 5, wherein said plurality of fishing gears, which have been disposed under sea and are withdrawn from the sea, are provided as a plurality of withdrawn fishing gears each having said identification means in which said identification data is given, wherein said identification data of each of said plurality of withdrawn fishing gears is read by said reading device, and wherein the device for surveying fishery resources is characterized in that said fishing gear data storage portion comprises a withdrawn fishing gear data storage area for storing said identification data associated with each of said plurality of withdrawn fishing gears in conjunction with said time data outputted from said clock device.

7. The device for surveying fishery resources as claimed in claim 5, wherein said plurality of fishing gears, before being cast into sea, are provided as a plurality of non-cast fishing gears each having said identification means in which said identification data is given, wherein said identification data of each of said plurality of non-cast fishing gears is read and obtained by said reading device, wherein said plurality of fishing gears, which have been cast in sea and are withdrawn from the sea, are provided as a plurality of withdrawn fishing gears each having said identification means in which said identification data is given, wherein said identification data of each of said plurality of withdrawn fishing gears is read and obtained by said reading device, and wherein the device for surveying fishery resources is characterized in that said fishing gear data storage portion comprises: a non-cast fishing gear data storage area for storing said identification data associated with each of said plurality of non-cast fishing gears in conjunction with said time data outputted from said clock device; and a withdrawn fishing gear data storage area for storing said identification data associated with each of said plurality of withdrawn fishing gears in conjunction with said time data outputted from said clock device.

8. The device for surveying fishery resources as claimed in claim 6 or 7, which is characterized by further comprising a fishing gear disposition time data arithmetical operation part operable to execute processing for said identification data associated with said each of said plurality of non-cast fishing gears, which is obtained by said reading device, as well as for one of said time data which corresponds to a point of time when said identification data associated with said each of said plurality of non-cast fishing gears is obtained, and also execute processing for said identification data associated with said each of said plurality of withdrawn fishing gears, which is obtained by said reading device, as well as for one of said time data which corresponds to a point of time when said identification data associated with said each of said plurality of withdrawn fishing gears is obtained, so as to find a match between said identification data associated with said each of said plurality of non-cast fishing gears and said identification

data associated with said each of said plurality of withdrawn fishing gears, thereby obtaining two matched pieces of identification data and identifying a particular one of said plurality of fishing gears on basis of said two matched pieces of identification data, then calculates a time difference by subtracting a time data associated with one of the two matched pieces of identification data from a time data associated with another of the two matched pieces of identification data, then computes on basis of said time difference so as to obtain a fishing gear disposition time data which is a data on a period of time during which one particular fishing gear is located under the sea, and finally outputs said fishing gear disposition time data to said fishery resources distribution data storage portion, so that said fishing gear disposition time data is stored said fishery resources distribution data storage portion.